

## Mounted High-Speed PIN Photodiodes

CVI Melles Griot silicon PIN photodiodes are ideal for low-intensity highbandwidth applications such as fiber-optic communications and data links, video systems, and industrial sensing.

- Excellent high-frequency response produces rise times as fast as
   0.35 nsec with an appropriate transimpedance amplifier.
- Post-mountable, these photodiodes interface directly with CVI Melles Griot snap-on filter mounts.
- Internal batteries eliminate the need for an external power supply.

## SPECIFICATIONS: Mounted High-Speed PIN Photodiodes

| Spectral Response     | 350–1100 nm                               |
|-----------------------|---|
| Bias                  | — 9 Vdc                                   |
| Battery Type          | Three 3-Vdc lithium batteries (included); |
|                       | 9 Vdc total                               |
| Termination           | 50 Ω                                      |
| Operating Temperature | -10°C to $+50$ °C                         |
| Storage Temperature   | $-35^{\circ}$ C to $+75^{\circ}$ C        |

## front view side view rear view 50 35.5 BNC connector dimensions in mm

13 DAH-series mounted high-speed PIN photodiodes

## Mounted High-Speed PIN Photodiodes 1,2

|            |               |                        |               |             | Breakdown     |               |          |            |
|------------|---------------|------------------------|---------------|-------------|---------------|---------------|----------|------------|
| Photodiode | Rise Time     | NEP <sup>3</sup>       | Dark Current  | Capacitance | Voltage (min) | Response      |          |            |
| Diameter   | at - 9 Vdc    | at $-9\mathrm{Vdc}$    | at - 9 Vdc    | at — 9 Vdc  | at 10 $\mu$ A | at 830 nm     | Package  | PART       |
| (mm)       | (nsec)        | (W/Hz <sup>1/2</sup> ) | (nA)          | (pF)        | (V)           | (A/W)         | Diameter | NUMBER     |
| 0.23       | 0.35-1.00 max | $6.3 \times 104^{15}$  | 0.02-1.00 max | 1.0         | 30            | 0.35-0.40 max | 50 mm    | 13 DAH 001 |
| 0.50       | 1.00-2.00 max | $9.0 \times 104^{15}$  | 0.05-1.00 max | 2.5         | 30            | 0.35-0.40 max | 50 mm    | 13 DAH 003 |
| 1.00       | 2.50-3.50 max | $2.2 \times 104^{14}$  | 0.25-1.00 max | 5.5         | 30            | 0.35-0.40 max | 50 mm    | 13 DAH 005 |

<sup>&</sup>lt;sup>1</sup> All specifications listed for an ambient temperature of 22°C.



<sup>&</sup>lt;sup>2</sup> A 50-Ω termination is required for mounted 13 DAH series.

<sup>&</sup>lt;sup>3</sup> Noise equivalent power.